ABSTRACT ESTIMATE

BRUHAT BANGALORE MAHANAGARA PALIKE

SL No	Name of Work:- Package 1 Consists of 4 Works
1	Improvements to roads and drains at Palanahalli and surrounding area in Ward No 05 Byatarayanapura sub division
2	Improvements to roads and drains at Chokkanahalli and surrounding area in Ward No 05 Byatarayanapura sub division
3	Improvements to roads and drains at Vinayakanagar and Surrounding area in Ward No 05 Byatarayanapura sub division
4	Improvements to roads and drains at Dwarkanagar and surrounding area in Ward No 05 Byatarayanapura sub division

SL No	Description of Item	Unit	Item No. in Estimate	Quantity	Rate in Rs.	Amount in Rs.
1	**KSRRB 300-1. Earthwork excavation by manual means for roads, drains & similar works in ordinary soil excavated surface levelled and sides neatly dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specifications(P.No-143 &136 ,I No-19.1&17.4& 17.1) 5km lead= 57+2.0x1.28x5=69.80**	Cum		**7,442.28**	**211.79**	**15,76,200.48**
a	Improvements to roads and drains at Palanahalli and surrounding area in Ward No 05 Byatarayanapura sub division		1	1,927.98		
b	Improvements to roads and drains at Chokkanahalli and surrounding area in Ward No 05 Byatarayanapura sub division		1	1,518.28		
c	Improvements to roads and drains at Vinayakanagar and Surrounding area in Ward No 05 Byatarayanapura sub division		1	1,822.90		
d	Improvements to roads and drains at Dwarkanagar and surrounding area in Ward No 05 Byatarayanapura sub division		1	2,173.12		
2	**Removing and refixing stone slabs of drains and pointing in CM (1:3) (P.No.27, I.No.5.33 of PW, P&IWTD SR 2018-19)**	sqm		**6,286.41**	**111.3**	**6,99,677.27**
a	Improvements to roads and drains at Palanahalli and surrounding area in Ward No 05 Byatarayanapura sub division		2	1,658.48		
b	Improvements to roads and drains at Chokkanahalli and surrounding area in Ward No 05 Byatarayanapura sub division		2	1,270.53		
c	Improvements to roads and drains at Vinayakanagar and Surrounding area in Ward No 05 Byatarayanapura sub division		2	1,532.36		
d	Improvements to roads and drains at Dwarkanagar and surrounding area in Ward No 05 Byatarayanapura sub division		2	1,825.05		
3	**Removing and resetting of footpath slab (P.No.270, I.No.37.56 of PW, P&IWTD SR 2018-19)**	sqm		**45.00**	**208.82**	**9,396.90**
a	Improvements to roads and drains at Palanahalli and surrounding area in Ward No 05 Byatarayanapura sub division					
b	Improvements to roads and drains at Chokkanahalli and surrounding area in Ward No 05 Byatarayanapura sub division					
c	Improvements to roads and drains at Vinayakanagar and Surrounding area in Ward No 05 Byatarayanapura sub division		4	45.00		
d	Improvements to roads and drains at Dwarkanagar and surrounding area in Ward No 05 Byatarayanapura sub division					
4	**Providing granite Slabs of Selected quality roughly dressed and fixed in cement mortor (1:6) including fixing curing etc,. Complete. 7.5cms thick (P.No.27, I.No.5.31.1 of PW, P&IWTD SR 2018-19)**	sqm		**698.48**	**742**	**5,18,275.50**
a	Improvements to roads and drains at Palanahalli and surrounding area in Ward No 05 Byatarayanapura sub division		3	184.28		
b	Improvements to roads and drains at Chokkanahalli and surrounding area in Ward No 05 Byatarayanapura sub division		3	141.17		
c	Improvements to roads and drains at Vinayakanagar and Surrounding area in Ward No 05 Byatarayanapura sub division		3	170.26		
d	Improvements to roads and drains at Dwarkanagar and surrounding area in Ward No 05 Byatarayanapura sub division		3	202.78		
5	**KSRRB M2900-1. Plain cement concrete M10 mix with crushed stone aggregate 40mm nominal size mechanically mixed, placed in foundation and compacted by vibration including curing including cost of materials, labour, HOM complete as per specifications. MORTH Specification No. 408 (P.No.254, I.No.34.1 of PW P&IWTD S R 2018-19)**	Cum		**15.12**	**4479.56**	**67,730.95**
a	Improvements to roads and drains at Palanahalli and surrounding area in Ward No 05 Byatarayanapura sub division		4	1.26		
b	Improvements to roads and drains at Chokkanahalli and surrounding area in Ward No 05 Byatarayanapura sub division		4	2.94		
c	Improvements to roads and drains at Vinayakanagar and Surrounding area in Ward No 05 Byatarayanapura sub division		5	5.46		
d	Improvements to roads and drains at Dwarkanagar and surrounding area in Ward No 05 Byatarayanapura sub division		4	5.46		
6	**Providing and constructing granite / trap / basalt size stone masonry in foundation with cement mortar & stone hammerd dressed in courses not less than 20 cms high, bond stones at 2m. apart in each course including cost of materials, labour, HOM, curing c**	Cum		**29.16**	**4871.76**	**1,42,060.52**

a	Improvements to roads and drains at Palanahalli and surrounding area in Ward No 05 Byatarayanapura sub division		5	7.29		
b	Improvements to roads and drains at Chokkanahalli and surrounding area in Ward No 05 Byatarayanapura sub division		5	4.86		
c	Improvements to roads and drains at Vinayakanagar and Surrounding area in Ward No 05 Byatarayanapura sub division		6	9.72		
d	Improvements to roads and drains at Dwarkanagar and surrounding area in Ward No 05 Byatarayanapura sub division		5	7.29		
7	**Providing and laying in position plain cement concrete of mix 1:2:4 with cement @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.69 cum and fine aggregtes @ 0.459cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, for coping. Including cost of all materials, labour, HOM, curing complete as per specifications.Specification No. KBS 4.1, 4.2(P.No 255, I.No.34.11 of PW,P&IWTD S.R 2018-19)**	**Cum**		**6.48**	**5599.98**	**36,287.87**
a	Improvements to roads and drains at Palanahalli and surrounding area in Ward No 05 Byatarayanapura sub division		6	1.62		
b	Improvements to roads and drains at Chokkanahalli and surrounding area in Ward No 05 Byatarayanapura sub division		6	1.08		
c	Improvements to roads and drains at Vinayakanagar and Surrounding area in Ward No 05 Byatarayanapura sub division		7	2.16		
d	Improvements to roads and drains at Dwarkanagar and surrounding area in Ward No 05 Byatarayanapura sub division		6	1.62		
8	**34.17 Providing and laying in position plain/Reinforced cement cement concrete M20 for sub structure/Superstructure works, with cement @ 320 kgs, 20 mm & down size graded granite metal coarse aggregate @ 0.69 cum and fine aggregates @ 0.46 cum machine mix**	**Cum**		**40.32**	**5277.74**	**2,12,798.48**
a	Improvements to roads and drains at Palanahalli and surrounding area in Ward No 05 Byatarayanapura sub division		7	3.36		
b	Improvements to roads and drains at Chokkanahalli and surrounding area in Ward No 05 Byatarayanapura sub division		7	7.84		
c	Improvements to roads and drains at Vinayakanagar and Surrounding area in Ward No 05 Byatarayanapura sub division		8	14.56		
d	Improvements to roads and drains at Dwarkanagar and surrounding area in Ward No 05 Byatarayanapura sub division		7	14.56		
9	**KSRRB M2200-6. Providing T.M.T. steel reinforcement for R.C.C. work including straightening, cutting, bending, hooking, placing in position, lapping and/or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever**	**Tonne**		**3.22**	**72326.98**	**2,32,892.88**
a	Improvements to roads and drains at Palanahalli and surrounding area in Ward No 05 Byatarayanapura sub division		8	0.27		
b	Improvements to roads and drains at Chokkanahalli and surrounding area in Ward No 05 Byatarayanapura sub division		8	0.63		
c	Improvements to roads and drains at Vinayakanagar and Surrounding area in Ward No 05 Byatarayanapura sub division		9	1.16		
d	Improvements to roads and drains at Dwarkanagar and surrounding area in Ward No 05 Byatarayanapura sub division		8	1.16		
10	**Providing and Fixing pre cast covering Slab 250mm thick made out of CC 1:2:4 and jelly 20mm Down size with steel reinforcement including form work,curing,including cost of alll materials, labour,hire charges of machinery, loading, unloading, lead and l**	**Sqm**		**239.40**	**5418**	**12,97,069.20**
a	Improvements to roads and drains at Palanahalli and surrounding area in Ward No 05 Byatarayanapura sub division		9	52.20		
b	Improvements to roads and drains at Chokkanahalli and surrounding area in Ward No 05 Byatarayanapura sub division		9	61.80		
c	Improvements to roads and drains at Vinayakanagar and Surrounding area in Ward No 05 Byatarayanapura sub division		10	49.20		
d	Improvements to roads and drains at Dwarkanagar and surrounding area in Ward No 05 Byatarayanapura sub division		9	76.20		
11	**KSRRB M300-14. Excavation for roadwork in all types of soil by mechanical means including cutting and loading to tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transportation with a lead of 1.00 km and complete as per specifications MORTH Specificatio MORTH Specification No 301with 4km lead= (I No-19.14 P No-143)**	**Cum**		**19,609.50**	**54.31**	**10,64,991.95**
a	Improvements to roads and drains at Palanahalli and surrounding area in Ward No 05 Byatarayanapura sub division		10	6,445.92		
b	Improvements to roads and drains at Chokkanahalli and surrounding area in Ward No 05 Byatarayanapura sub division		10	3,196.71		
c	Improvements to roads and drains at Vinayakanagar and Surrounding area in Ward No 05 Byatarayanapura sub division		11	5,433.18		
d	Improvements to roads and drains at Dwarkanagar and surrounding area in Ward No 05 Byatarayanapura sub division		10	4,533.69		

12	**KSRRB M400-17. Providing, laying, spreading and compacting cushed stone aggregates of granite / trap / basalt to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed materials by tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications(P.No-155,I No-20.18)**	**Cum**		**16,341.26**	**2001.28**	**3,27,03,436.81**
a	Improvements to roads and drains at Palanahalli and surrounding area in Ward No 05 Byatarayanapura sub division		11	5,371.60		
b	Improvements to roads and drains at Chokkanahalli and surrounding area in Ward No 05 Byatarayanapura sub division		11	2,663.93		
c	Improvements to roads and drains at Vinayakanagar and Surrounding area in Ward No 05 Byatarayanapura sub division		12	4,527.65		
d	Improvements to roads and drains at Dwarkanagar and surrounding area in Ward No 05 Byatarayanapura sub division		11	3,778.08		
13	**KSRRB M 500-6, Providing and applying primer coat with SS bitumen emulsion on prepared surface of granular Base such as WBM WMM including clearing of road surface and spraying primer at the rate of 0.60 kglsqm using mechanical means complete as per specifications. As per MORTH specification clause No. 502 (P.No.158, I.No.21.6 of PW,P&IWTD SR 2018-19)**	**sqm**		**65,365.00**	**28.62**	**18,70,746.30**
a	Improvements to roads and drains at Palanahalli and surrounding area in Ward No 05 Byatarayanapura sub division		12	21,486.40		
b	Improvements to roads and drains at Chokkanahalli and surrounding area in Ward No 05 Byatarayanapura sub division		12	10,655.70		
c	Improvements to roads and drains at Vinayakanagar and Surrounding area in Ward No 05 Byatarayanapura sub division		13	18,110.60		
d	Improvements to roads and drains at Dwarkanagar and surrounding area in Ward No 05 Byatarayanapura sub division		12	15,112.30		
14	**KSRRB 500-2: Cleaning the existing black topped surface with brooms, soft brushes and finally dusting with old gunny bags and / or compressed air to receive bituminous treatement including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH Spec, Chapter 5 (P.No.158, I.No.21.2 of PW,P&IWTD SR 2018-19)**	**sqm**		**49,632.00**	**5.3**	**2,63,049.60**
a	Improvements to roads and drains at Palanahalli and surrounding area in Ward No 05 Byatarayanapura sub division		13	8,452.60		
b	Improvements to roads and drains at Chokkanahalli and surrounding area in Ward No 05 Byatarayanapura sub division		13	10,113.80		
c	Improvements to roads and drains at Vinayakanagar and Surrounding area in Ward No 05 Byatarayanapura sub division		14	12,483.90		
d	Improvements to roads and drains at Dwarkanagar and surrounding area in Ward No 05 Byatarayanapura sub division		13	18,581.70		
15	**KSRRB M500-7 : Providing and applying tack coat using 80/100 grade bitumen (VG10) on prepared black topped surfaces at 2.5 Kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications.MORTH / Chapter 5 (P.No.158 I.No.21.7 of PW,P&IWTD SR of 2018-19)**	**sqm**		**1,50,844.50**	**12.72**	**19,18,742.04**
a	Improvements to roads and drains at Palanahalli and surrounding area in Ward No 05 Byatarayanapura sub division		14	36,025.40		
b	Improvements to roads and drains at Chokkanahalli and surrounding area in Ward No 05 Byatarayanapura sub division		14	28,995.20		
c	Improvements to roads and drains at Vinayakanagar and Surrounding area in Ward No 05 Byatarayanapura sub division		15	40,857.10		
d	Improvements to roads and drains at Dwarkanagar and surrounding area in Ward No 05 Byatarayanapura sub division		14	44,966.80		
16	**KSRRB M500-17. Providing and laying dense graded bituminous macadam using crushed aggregates of specified grading, premixed with VG30 grade bituminous binder and, transporting the hot mix to work site, laying to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications Clause 505 of MORTH V revisionusing 40/60 TPH capacity H.M.P. with Mechanical paver Gr-II (50 mm to 75 mm) with 4.5 % VG-30 Bitumen (P.No-160,I No-21.17.6)**	**Cum**		**1,794.25**	**6597.44**	**1,18,37,456.72**
a	Improvements to roads and drains at Palanahalli and surrounding area in Ward No 05 Byatarayanapura sub division		15	304.32		
b	Improvements to roads and drains at Chokkanahalli and surrounding area in Ward No 05 Byatarayanapura sub division		15	413.16		
c	Improvements to roads and drains at Vinayakanagar and Surrounding area in Ward No 05 Byatarayanapura sub division		16	513.13		
d	Improvements to roads and drains at Dwarkanagar and surrounding area in Ward No 05 Byatarayanapura sub division		15	563.64		

17	Providing and laying bituminous concrete 40mm thick with hot mix plant, using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications. Clause 507 of MORTH V revision as per IRC SP-53-2015. using 40-60 TPH capacity HMP with mechanical paver grading II (30-45mm) with 5.4% of modified bituminus binder consisting of 4.97% of VG-30 bitumen (60/70 grade) and 0.43% of plastomeric thermoplastics (waste plastic) (P.No.171, I.No.21.78.12 of PW,P&IWTD SR 2018-19) As per Issue rate dated: 03/01/2020	Cum		4,598.38	7753.9	3,56,55,378.68
a	Improvements to roads and drains at Palanahalli and surrounding area in Ward No 05 Byatarayanapura sub division		16	1,197.56		
b	Improvements to roads and drains at Chokkanahalli and surrounding area in Ward No 05 Byatarayanapura sub division		16	829.28		
c	Improvements to roads and drains at Vinayakanagar and Surrounding area in Ward No 05 Byatarayanapura sub division		17	1,223.78		
d	Improvements to roads and drains at Dwarkanagar and surrounding area in Ward No 05 Byatarayanapura sub division		16	1,347.76		
18	KSRRB M800-13.Road Marking with Hot Applied Thermoplastic Compound with Reflectrising Glass Beads on Bituminous Surface/ Concrete Surface: Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 standards specified. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803(P.No-182,I No-24.15)	sqm		4,661.50	454.74	21,19,770.51
a	Improvements to roads and drains at Palanahalli and surrounding area in Ward No 05 Byatarayanapura sub division		17	1,189.50		
b	Improvements to roads and drains at Chokkanahalli and surrounding area in Ward No 05 Byatarayanapura sub division		17	767.50		
c	Improvements to roads and drains at Vinayakanagar and Surrounding area in Ward No 05 Byatarayanapura sub division		18	1,349.00		
d	Improvements to roads and drains at Dwarkanagar and surrounding area in Ward No 05 Byatarayanapura sub division		17	1,355.50		
				Total Construction Cost		92225962.65
				12% GST to Construction Cost		11067115.52
				5% Tender Premium		4611298.13
19				Cost towards Preparation of DPR LS		1032931.00
20				Cost towards PMC / Third Party inspection LS		1032931.00
21					Sub Total	109970238.30
22				Miscellaneous and rounding off		29761.70
					TOTAL	110000000.00
23						

Certificate.

1 The rates adopted based on the PWD SR, Bangalore circle for year 2018-19,
2 The provisions made in the estimate are necessary and essential.
3 The workspot was inspected and work is found to be necessary.
4 The area comes within the Bruhat Bangalore Mahanagara Palike limits.

Tejus Consultants

Assistant Engineer

Assistant Executive Engineer

Executive Engineer

Technical Sanction
Accorded For RS1100 in Lakhs only
Head of A/C. P3158
CER NO : Nil Dt: 22-05-2020

TA I CE (YNK)

ADMINISTRATIVE APPROVAL
Accorded For Rs. 1100.00 Lakhs only
Head of A/c. P-3158
Div. Ref. No. 61/20-21 Date 05-2-21

AE EE(BTP)